

Some *Chalcidoidea* from Majorca, with descriptions of two new species

(Hymenoptera)

BY

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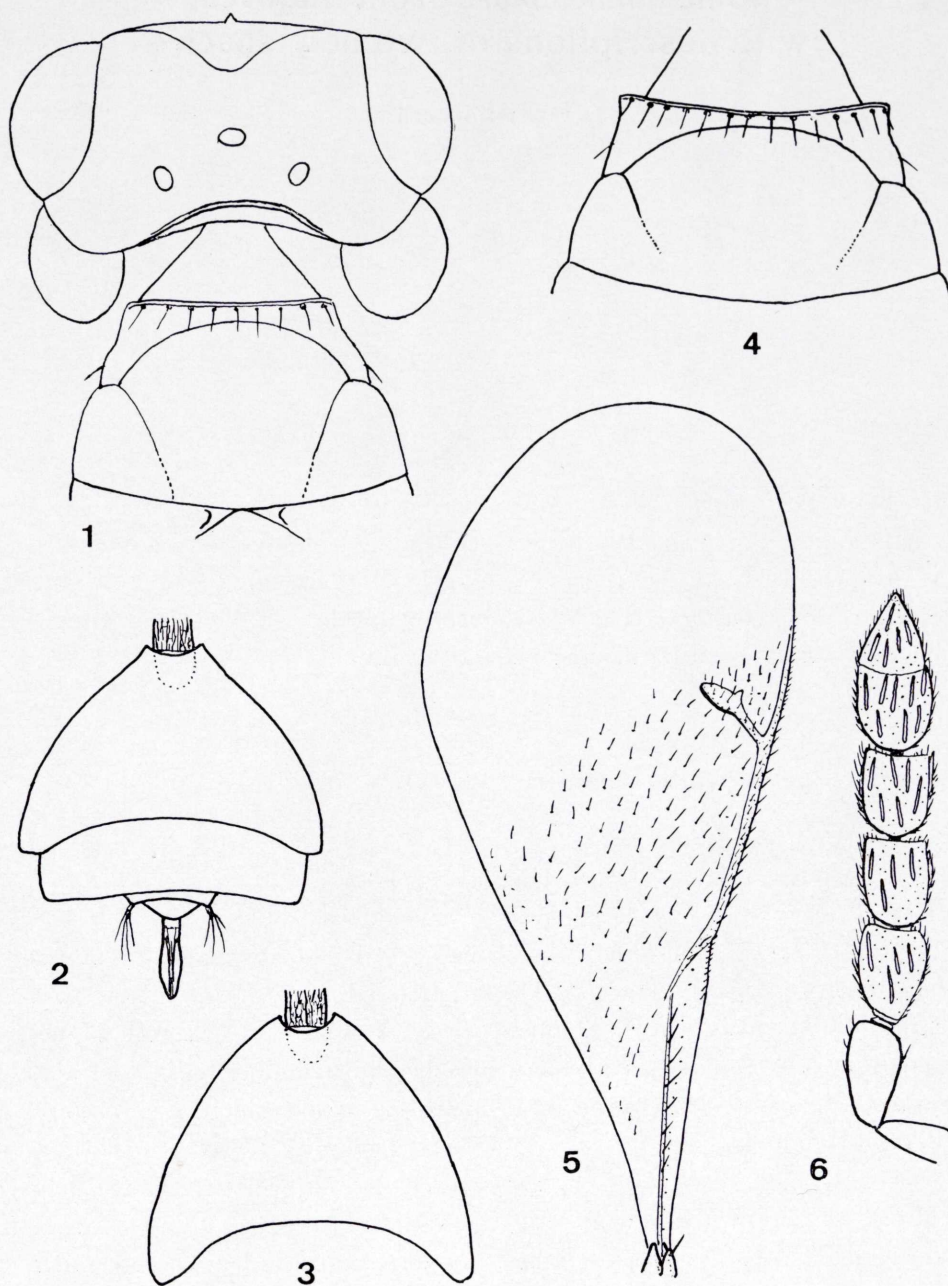
During a short visit to Majorca in the early spring of 1972, a small number of *Chalcidoidea* was collected. This collection included two new species, a *Cyrtogaster* Walker (*Pteromalidae*) and an *Olynx* Förster (*Eulophidae*), which are described below. Notes are appended on other species collected on the island.

1. *Cyrtogaster mallorcensis* nov. sp.

Holotype ♂, swept in a grassy area, Lluch Alcari, Deyá, Majorca. (British Museum, Natural History, London).

♂ — Head blue-green to bronze-green, thorax dark green to bronze-green, gaster greenish black; inflated part of maxillary palp concolorous with head, antennae sordid testaceous; wings hyaline, venation and tegulae sordid testaceous; coxae metallic, legs otherwise testaceous except claws and last tarsal segments which are fuscous. Length 1.5 mm.

Head finely reticulate, rather weakly so on vertex, wider than thorax (4:3); in dorsal view (fig. 1) slightly more than twice as wide as medially long, temples strongly convergent behind eyes and about one third as long as eyes; vertex sharply marked off from occiput by a slightly raised, sharp margin behind ocelli; ocelli in a triangle of about 120°, POL:OOL as 1.6:1. Head in frontal view 1.3 times as wide as high; genae strongly converging towards mouth, curved and slightly excavated above mandibles, malar space just less than half



Figs. 1-6.—*Cyrtogaster mallorcensis* nov. sp. ♂ : 1) head, pronotum and mesoscutum in dorsal view; 2) gaster, dorsal view. *C. vulgaris* Walker, ♂ : 3) gaster, first tergite, dorsal; 4) pronotum and mesoscutum, dorsal. *Olynx bicolor* nov. sp. ♀ : 5) left forewing, hairs omitted from apical part; 6) right flagellum in profile, external aspect.

the height of an eye. Eyes rather prominent, separated by about 1.3 times their height, very sparsely hairy. Frons strongly excavated behind antennal scapes with a weak crest between toruli; clypeus mostly smooth and shining, tridentate. Antennae (11263) inserted at about level of lower edge of eyes; scape linear, reaching top of vertex; pedicel more than twice as long as wide, longer than anelli plus first funicle segment; flagellum 1.2 times as long as width of head, filiform; funicle segments 1 to 4 slightly longer than wide, 5 and 6 subquadrate; clava not quite so long as three preceding funicle segments together, about twice as wide as pedicel. Maxillae with penultimate segment of palp enormously inflated and longer than height of an eye, last segment normal.

Thorax about 1.4 times as long as wide, moderately convex in profile. Pronotal collar margined, in dorsal view (fig. 1) sides diverging, smooth and shining behind row of setae. Mesoscutum short, 1.7 times as wide as long, quite strongly reticulate, notaulices complete but very shallow posteriorly. Scutellum convex in both axes, slightly wider than long and longer than mesoscutum (25:22), frenum poorly differentiated from rest of scutellum with frenal groove indistinct. Propodeum slightly shorter than scutellum, rugose; spiracular sulcus shallow; spiracles small and round, separated from metanotum by about their own diameter; callus densely hairy. Legs slender, tarsi unmodified.

Forewing: lengths marginal vein: postmarginal vein: stigmal vein as 34:29:18, stigmal vein almost straight; stigma small; costal cell with a row of long, black setae on undersurface in distal third but with short, pale setae only proximally (as in *C. vulgaris* Walker); basal cell with scattered hairs distally, basal vein pilose; speculum open below.

Gaster (fig. 2) slightly wider than long excluding aedeagus (dried specimen), virtually only two tergites visible, the first only moderately emarginate (cf. *C. vulgaris* [fig. 3]), surface smooth and shining. Petiole slightly shorter than median length of propodeum (6:7), 1.5 times as long as wide, strigose.

♀ — Unknown.

Material.—2 ♂♂ (one the holotype), swept in a grassy area, Lluç Alcari, Deyá, Majorca, 4.iv.1972 (R. R. Askew leg.). The holotype will be deposited in the British Museum (Natural History), the paratype retained in the author's collection.

In general shape *C. mallorcensis* most resembles *C. vulgaris* Wal-

ker, but the structure of its maxillary palps, unmodified middle tarsi, and complete notaulices place it nearer to *C. britteni* Askew and the nearctic species *C. glasgowi* Crawford. The following key separates males of all known species of the genus.

KEY TO MALES OF *Cyrtogaster* WALKER.

1. Maxillary palps with last segment clavate, penultimate segment shorter than height of an eye; middle tarsi entirely black and last segment inflated; notaulices only rarely traceable to posterior of mesoscutum; pronotal collar with prominent shoulders (fig. 4). (Occiput nearly always margined behind ocelli, gastral tergites smooth and shining) **vulgaris** Walker.
- Maxillary palpi with last segment not clavate, penultimate segment at least as long as height of an eye; middle tarsi not black and last segment normal; notaulices traceable to posterior margin of mesoscutum; pronotal collar lacking prominent shoulders (fig. 1) 2.
2. Thorax weakly arched dorsally; forewing speculum closed below; gastral tergites with alutaceous sculpture. (Occiput not margined behind ocelli) **britteni** Askew.
- Thorax moderately to strongly arched dorsally; forewing speculum open below; gastral tergites smooth and shining 3.
3. Occiput distinctly ridged behind ocelli; scutellum with frenal groove indistinct; Palearctic species ... **mallorcensis** nov. sp.
- Occiput not ridged; scutellum with frenal groove distinct; Nearctic species **glasgowi** Crawford.

2. **Olynx bicolor** nov. sp.

Holotype ♀, on an olive tree, Lluch Alcari, Deyá, Majorca (in the author's collection).

♀ — Head with face yellow to just above the frontal fork, vertex metallic bronze-green except for yellow lines connecting ocelli and running from lateral ocelli to orbits, occipital surface predominantly greenish but yellowish in a strip behind eyes and on genae. Labium yellow. Eyes red, ocelli light crimson. Antennal scape and pedicel

yellowish ventrally, antennae otherwise fuscous. Pronotum metallic green to blue-green dorsally, yellow ventrally at sides; prosternum and prepectus yellow; mesoscutum green to bronze-green, side-lobes yellow ventrally; axillae and scutellum bronze-green, the scutellum with two parallel dark-blue lines; mesopleuron bronze-green except just below wing base which is yellow; metathorax and propodeum bronze-green. Legs with front coxae yellow ventrally, middle and hind coxae mainly metallic green; trochanters mainly yellow; femora yellow with ventral surfaces more or less infuscate; tibiae and tarsi yellowish except for apical tarsal segments and claws which are fuscous. Forewing infuscate about and below stigmal vein, the infuscation spreading weakly across the disc of the wing; venation fuscous. Gaster blackish with dark green and purple reflections. Length 2.0 mm.

Head in dorsal view wider than thorax, collapsed; in frontal view about 1.3 times as wide as high, malar space more than half the height of an eye; clypeal incision small but distinct. Eyes almost bare. Antennae (fig. 6) with first funicle segment about equal in length to pedicel, second as long as first, third slightly shorter than pedicel and about 1.2 times as long as wide, clava slightly shorter than two preceding funicle segments together, sensilla rather irregularly placed.

Thorax very finely and shallowly sculptured dorsally, the scutellum with very small, longitudinally elongated areoles. Mesoscutum with two lines of three short setae, each seta originating from a distinct pit. Pronotum medially 0.4 times as long as mesoscutum; scutellum a little shorter than mesoscutum, distinctly longer than wide and strongly arched. Dorsellum large, one third as long as scutellum. Propodeum medially only half as long as dorsellum, alutaceous with a weak median carina, spiracular sulci shallow, callus with 6 or 7 long hairs.

Forewing (fig. 5): lengths marginal vein: postmarginal vein: stigmal vein as 19:12:8, the distal limit of the postmarginal vein rather indefinite; speculum closed below by line of hairs on cubital vein; basal cell open below; basal vein pilose; stigma elongated as in all *Olynx* spp. but also broad so that proximal edge of stigmal vein is sinuate.

Petiole short, transverse, smooth; gaster long and acuminate, longer than head and thorax (including propodeum) together (19:16) and more than twice as long as wide; ovipositor sheaths slightly exerted.

♂ — Unknown.

Material.—1 ♀ (the holotype), Lluch Alcari, Deyá, Majorca, 8.iv. 1972 (R. R. Askew leg.). Collected on an olive tree but almost certainly a parasite of *Cynipidae* on *Quercus*. Retained at present in the author's collection.

This striking species is allied to *O. arsames* (Walker), having the first funicle segment about equal in length to the pedicel, the forewing speculum closed below, a single fuscous mark on the forewing, weak thoracic sculpture and a relatively long postmarginal vein. It is readily distinguished from *O. arsames* and allied species by its bicoloured head and thorax, elongate gaster and broad stigma. The only other bicoloured species known is *O. testaceoviridis* Erdős (the type of which has been examined), but this belongs to the *O. gallarum* (L.) species group (Askew, 1959) and it differs from *O. bicolor* in having the first funicle segment distinctly longer than the pedicel, forewing with speculum open below and usually two fuscous marks, and the thorax dorsally predominantly yellowish in most specimens.

OTHER SPECIES COLLECTED.

The principal collecting area was a small, grass-covered terrace at Lluch Alcari, near Deyá, on the north-west coast, at about the lower level of the olive groves and above the coastal pine woods. This area is designated LA in the list that follows. Other localities are given in full.

At several places flowers of *Euphorbia* were found to be a productive source of material.

EURYTOMIDAE.

3. *Eurytoma* (*Bruchophagus*) sp.

Many ♀♀ observed at several localities with their ovipositors inserted into seeds of *Euphorbia terracina* L. and *E. ? dendroides* L. After the insects had left the seeds, a small drop of latex could be seen exuding from the puncture. I can trace no records of *Eurytoma* spp. living as larvae in seeds of *Euphorbiaceae*, and this may be an undescribed species. Dr. Z. Bouček, to whom I showed specimens, considers it fairly close to *E. bajaranii* Erdős.

4. **Eurytoma setigera** Mayr, 1878.

Eurytoma setigera Mayr, 1878. *Verh. zool.-bot. Ges. Wien*, t. XXVIII, págs. 330-331. (Austria).

1 ♀ ex gall of Cynipid on leaf margin of *Quercus ilex* L., Escorca. The host gall is similar to that of *Neuroterus quercusbaccarum* (L.). Other *Eurytomidae* not identified.

TORYMIDAE.5. **Torymus** sp.

3 ♂♂ ex Cynipid galls on leaf margins of *Q. ilex*, Escorca. 2 pupae (♂, ♀) and 1 fully grown larva were found inside similar galls (1 per gall). The larva resembles that of other *Torymus* spp. inhabiting Cynipid oak galls (cf. Askew, 1965). The adult is remarkable for its conspicuously enlarged stigma.

PTEROMALIDAE.6. **Cleonymus laticornis** Walker, 1837.

Cleonymus laticornis Walker, 1837. *Ent. Mag.*, t. IV, pág. 351. (Kent, England).

1 ♀, Salinas de Levante, 7-IV.

7. **Asaphes vulgaris** Walker, 1834.

Asaphes vulgaris Walker, 1834. *Ent. Mag.*, t. II, pág. 152. (Britain).

13 ♂♂, 4 ♀♀, LA, 28-III — 8-IV.

8. **Sphegigaster nigricornis** (Nees, 1834).

Chrysolampus nigricornis Nees, 1834. *Hymenopterorum Ichneumonibus affinium monographiae*, t. II, págs. 133-134. (Germany).

1 ♂ on *Euphorbia terracina*, La Albufera, 30-III.

9. **Halticoptera aenea** (Walker, 1833).

Dicyclus aeneus Walker, 1833. *Ent. Mag.*, t. I, pág. 456. (London, England).

1 ♂, 1 ♀, LA, 28-III.

10. **Ksenoplata quadrata** Bouček, 1965.

Ksenoplata quadrata Bouček, 1965. *Sb. ent. Odd. nár. Mus. Praze*, t. XXXVI, págs. 374-376, figs. 1-4. (Banska Štiavnica, Slovakia).

1 ♀, Salinas de Levante, 7-IV. Determination confirmed by Dr. Bouček.

11. **Miscogaster maculata** Walker, 1833.

Miscogaster maculata Walker, 1833. *Ent. Mag.*, t. I, pág. 459. (Britain).

2 ♂ ♂, 4 ♀ ♀, LA, 28-III and 4-IV.

12. **Systasis ? encyrtoides** Walker, 1834.

Systasis encyrtoides Walker, 1834. *Ent. Mag.*, t. II, págs. 296-297. (England).

1 ♀, LA, 4-IV. A small, bronze specimen with a rather elongated body.

13. **Gastrancistrus ? vagans** Westwood, 1833.

Gastrancistrus vagans Westwood, 1833. *Phil. Mag.*, t. II, pág. 444. (Coombe, England).

1 ♀, LA, 8-IV.

14. **Norbanus scabriculus** (Nees, 1834).

Pteromalus scabriculus Nees, 1834. *Hymenopterorum Ichneumonibus affinium monographiae*, t. II, págs. 100-101. (Germany).

1 ♀ on *Euphorbia terracina*, La Albufera, 30-III. Somewhat unusual in having forewing basal cell pilose in distal third.

15. **Habrocytus semotus** (Walker, 1834).

Eutelus semotus Walker, 1834. *Ent. Mag.*, t. II, pág. 367. (Isle of Wight, England).

1 ♂, 1 ♀, La Albufera, 30-III.

16. **Habrocytus myopitae** Graham, 1969.

Habrocytus myopitae Graham, 1969. *Bull. Brit. Mus. (Nat. Hist.) Entomology*, suppl. XVI, págs. 540-542, fig. 380. (Isle of Wight, England).

18 ♂♂, 11 ♀♀ ex 47 galls of *Myopites blotii* Bréb., near Sóller, which produced also 30 Trypetids, 7 ♂♂, 7 ♀♀ of an unidentified *Eurytoma* species and the following.

17. **Habrocytus** sp. nr. **musaeus** (Walker, 1844).

Pteromalus musaeus Walker, 1844. *Ann. Mag. nat. Hist.*, t. XIV, pág. 340. (Sweden).

1 ♀ ex gall of *M. blotii*, near Sóller.

18. **Habrocytus ? sequester** (Walker, 1835).

Pteromalus sequester Walker, 1835. *Ent. Mag.*, t. II, pág. 495. (England).

3 ♀♀ on *Euphorbia ? dendroides*, LA, 3-IV.

19. **Chlorocytus spicatus** (Walker, 1835).

Pteromalus spicatus Walker, 1835. *Ent. Mag.*, t. III, pág. 97. (London, England).

1 ♀ on *E. terracina*, La Albufera, 30-III.

20. **Mesopolobus ? mediterraneus** (Mayr, 1903).

Eutelus mediterraneus Mayr, 1903. *Verh. zool.-bot. Ges. Wien*, t. LIII, págs. 388-389. (Rome, Italy).

1 ♀ on *E. terracina*, Escorca, 29-III.

21. **Meraporus graminicola** Walker, 1834.

Meraporus graminicola Walker, 1834. *Ent. Mag.*, t. II, págs. 299-300. (Britain).

1 ♀, Palma, 1-IV. A very large, bronze specimen with heavily infuscate wings.

22. **Peridesmia discus** (Walker, 1835).

Pteromalus discus Walker, 1835. *Ent. Mag.*, t. II, pág. 482. (Isle of Wight, England).

1 ♂, Salinas de Levante, 7-IV; 2 ♀ ♀ on *E. terracina*, Escorca, 29-III.

23. **Trichomalus helvipes** (Walker, 1834).

Eutelus helvipes Walker, 1834. *Ent. Mag.*, t. II, pág. 365. (New Lanark, Scotland).

1 ♀ on *E. terracina*, Escorca, 29-III.

24. **Trichomalus campestris** (Walker, 1834).

Amblymerus campestris Walker, 1834. *Ent. Mag.*, t. II, pág. 343. (London, England).

1 ♀, LA, 28-III.

25. **Conomorium patulum** (Walker, 1835).

Pteromalus patulus Walker, 1835. *Ent. Mag.*, t. II, págs. 479-480. (England).

1 ♀, LA, 28-III.

26. **Hemitrichus oxygaster** Bouček, 1965.

Hemitrichus oxygaster Bouček, 1965. *Sb. faun. Práce ent. Odd. nár. Mus. Praze*, t. XI, pág. 19, fig. 6. (Sadovo, Moldavian S. S. R.).

1 ♀, LA, 8-IV. Determination confirmed by Dr. Bouček.

EUPELMIDAE.27. **Eupelmella vesicularis** (Retzius, 1783).

Ichneumon vesicularis Retzius, 1783. *Genera et Species Insectorum*, pág. 70. (Sweden).

1 ♂ on *E. terracina*, La Albufera, 30-III.

28. **Eupelmus urozonus** Dalman, 1820.

Eupelmus urozonus Dalman, 1820. *Handl. K. Svenska VetenskAkad.*, t. XVI, pág. 378. (Sweden).

1 ♀ ex Cynipid gall on leaf margin of *Quercus ilex*, Escorca.

EULOPHIDAE.

29. **Elachertus ? geniculatus** (Ratzeburg, 1844).

Eulophus geniculatus Ratzeburg, 1844. *Die Ichneumoniden der Forstinsecten*, t. I, pág. 168. (Germany).

12 ♂ ♂, 2 ♀ ♀, La Albufera, 30-III. From coastal sand-dunes near pines. Atypical of *geniculatus* in having the scutellum alutaceous; also the scutellum is not so strongly flattened as in specimens from northern Europe.

30. **Cirrospilus vittatus** Walker, 1838.

Cirrospilus vittatus Walker, 1838. *Ann. Nat. Hist.*, t. I, pág. 308. (Britain).

1 ♀, LA, 28-III.

31. **Diglyphus isaea** (Walker, 1838).

Cirrospilus isaea Walker, 1838. *Ann. Nat. Hist.*, t. I, pág. 386. (Britain).

5 ♂ ♂, 1 ♀, LA 28-III — 8-IV; 2 ♂ ♂, Santa María, 29-III; 1 ♂, La Albufera, 30-III; 1 ♂, Salinas de Levante, 7-IV.

32. **Pnigalio pectinicornis** (Linnaeus, 1758).

Ichneumon pectinicornis Linnaeus, 1758. *Systema Naturae* (10th edit.), t. I, pág. 568. (Sweden).

1 ♂, LA, 28-III.

33. **Hemiptarsenus unguicellus** (Zetterstedt, 1838).

Entedon unguicellus Zetterstedt, 1838. *Insecta Lapponica*, t. I, pág. 427. (Sweden).

1 ♀, LA, 28-III.

34. **Hemiptarsenus dropion** (Walker, 1839).

Eulophus dropion Walker, 1839. *Monographia Chalciditum*, t. I, pág. 150.
(England).

1 ♂, LA, 4-IV.

35. **Pediobius rotundatus** (Fonscolombe, 1832).

Cynips rotundata Fonscolombe, 1832. *Annls. Sci. nat. Zool.*, t. XXVI,
págs. 273-307. (France).

1 ♂, 2 ♀♀, LA, 28-III, from *Quercus*. These specimens probably represent the overwintering form of the species and they resemble specimens described (under *plagiotrochi* Erdös) by Bouček (1965) and Askew (1962) from Portugal and Spain.

36. **Chrysocharis pubicornis** (Zetterstedt, 1838).

Entedon pubicornis Zetterstedt, 1838. *Insecta Lapponica*, t. I, pág. 427.
(Bothnia, Lapland).

1 ♂, LA, 28-III.

37. **Chrysocharis melaenis** (Walker, 1839).

Entedon melaenis Walker, 1839. *Monographia Chalciditum*, t. I, págs. 47-48. (London, England).

1 ♀, LA, 28-III.

38. **Eugerium isander** (Walker, 1839).

Cirrospilus isander Walker, 1839. *Monographia Chalciditum*, t. I, pág. 326
(London, England).

2 ♂♂, LA, 8-IV.

39. **Euderus viridis** Thomson, 1878.

Euderus viridis Thomson, 1878. *Hymenoptera Scandinaviae*, t. V, pág. 278.
(Öland, Sweden).

2 ♂ ♂ on *E. terracina*, La Albufera, 30-III.

TETRASTICHINAE not identified.

APHELINIDAE.40. **Aphelinus asychis** Walker, 1839.

Aphelinus asychis Walker, 1839. *Monographia Chalciditum*, t. I, págs. 2-3.
(London, England).

2 ♀ ♀, LA, 4 and 8-IV. Large specimens with infusate wings and dark hind femora.

41. **Aphelinus varipes** (Förster, 1841).

Myina varipes Förster, 1841. *Beiträge zur Monographie der Pteromalinen*,
t. I, pág. 45. (Germany).

1 ♀, LA, 4-IV.

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inhabiting Cynipid oak galls. *Entomophaga*, t. VII, págs. 337-342.

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